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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,101	02/15/2005	Giovanni Berti	1110 006 301 0202	8536
37211	7590	02/22/2006	EXAMINER	
BASCH & NICKERSON LLP 1777 PENFIELD ROAD PENFIELD, NY 14526			SANEI, MONA M	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5/6

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/502,101	BERTI, GIOVANNI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mona M. Sanei	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07202004</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Specification***

The disclosure is objected to because of the following informalities:

- Pg. 1, line 3, replace “a x-ray” with - -an x-ray- -.
- Pg. 1, line 10, replace “field” with - -field, such- -.
- Pg. 1, line 17, replace “are” with - -is- -.
- Pg. 1, line 21, replace “equipment” with - -equipments- -.
- Pg. 1, line 21, replace “a x-ray” with - -an x-ray- -.
- Pg. 1, line 23, replace “Specimen” with - -The specimen- -.
- Pg. 1, line 25, replace “form” with - -to form- -.
- Pg. 1, line 27, replace “The x- ray” with - -X-ray- -.
- Pg. 1, line 27, replace “in” with - -in the- -.
- Pg. 2, line 8, replace “for in” with - -for- -.
- Pg. 3, line 3, replace “a x-ray” with - -an x-ray- -.
- Pg. 3, line 21, replace “called” with - -called the- -.
- Pg. 3, line 23, delete “As”.
- Pg. 3, line 23, replace “source” with - -Source- -.
- Pg. 3, line 24, delete “as”.
- Pg. 3, line 24, replace “, the” with - -is commonly defined the- -.
- Pg. 4, line 5, replace “is” with - -it is- -.
- Pg. 4, line 22, replace “a x-ray” with - -an x-ray- -.
- Pg. 4, line 25, delete “)”.
- Pg. 5, line 3, replace “a x-ray source” with - -an x-ray source- -.
- Pg. 5, line 3, replace “a x-ray detector” with - -an x-ray detector- -.
- Pg. 5, line 16, replace “it” with - -the equatorial plane- -.

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- Pg. 5, line 18, replace "structure supporting and movement" with - -supporting and movement structure- -.
- Pg. 5, line 19, replace "permits to the" with - -permits the- -.
- Pg. 8, line 11, replace "supported.." with - -supported.- -.
- Pg. 10, line 10, replace "obtained , such" with - -obtained, such- -.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

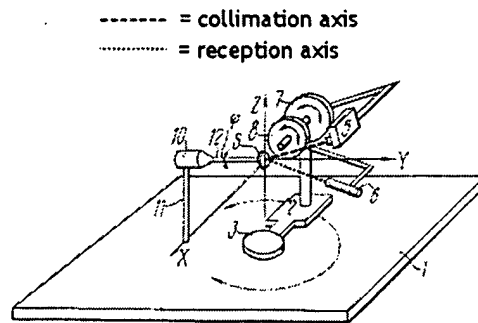
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-7 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Aslanov et al. (GB 2,198,920).

Regarding Claims 1 and 12, Aslanov et al. discloses a diffractometer (apparatus for x-ray studies of crystalline matter, Pg. 7, line 1; Figs. 1-4) comprising an analytical unit (horizontally extending base, Pg. 7, line 3; Figs. 1-4, #1) supporting a source of a radiation beam (x-radiation source, Pg. 7, line 13; Figs. 1-4, #5) having a collimation axis (see the following modified Fig. 3) and a radiation beam detector (detector, Col. 7, line 13; Figs. 1-4, #6) having a reception axis (see the following modified Fig. 3), the collimation and reception axes converging at a centre (specimen, Pg. 7, line 9; Figs. 1-4, "S") of the diffractometer, the centre of the diffractometer being fixed with respect to the analytical unit (Figs. 1-4):



means for moving the analytical unit (three rolling-contact spherical bearings, Pg. 7, lines 10-11; Figs. 1-4, #4);

means for rotating the source and the radiation beam detector around the centre of the diffractometer so that the collimation axis and the reception axis are kept in an equatorial plane (respective mechanisms, Pg. 7, line 15; Figs. 1-4; #7 and #8), fixed with respect to the analytical unit (Figs. 1-4);

a support and movement structure (mechanism, Pg. 7, line 4; Figs. 1-4, #3) supporting the analytical unit;

means for moving the analytical unit (three rolling-contact spherical bearings, Pg. 7, lines 10-11; Figs. 1-4, #4) with respect to the support and movement structure so that the analytical unit can rotate around an equatorial axis contained in the equatorial plane and passing through the centre of the diffractometer (Pg. 7, lines 9-18; Figs. 1-4), the means for moving the analytical unit with respect to the support and movement structure permitting the rotation of the equatorial plane around the equatorial axis, without the support and movement structure changing its position (Figs. 1-4); and

positioning the centre of the diffractometer on a point of the surface of an element to be analyzed (Pg. 7, lines 11-15).

Regarding Claim 2, Aslanov et al. discloses a diffractometer wherein the means for moving the analytical unit enables rotation of the analytical unit around an axis perpendicular to the equatorial axis (Pg. 7, lines 9-18; Figs. 1-4).

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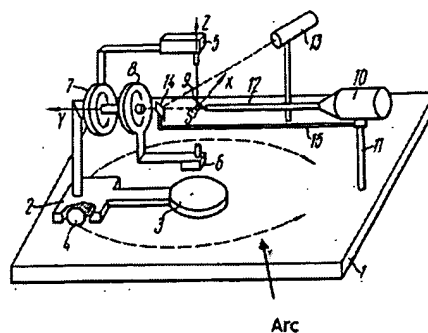
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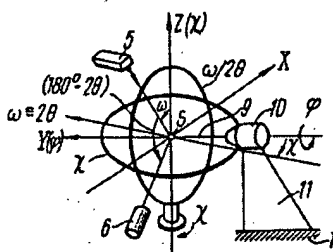


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Regarding Claim 13, Aslanov et al. discloses a diffractometer wherein the analytical unit has a symmetry plane and the plane is placed perpendicularly to the surface of the element to be analyzed at the point coincident with the centre of the diffractometer (Figs. 1-4, specifically Fig. 4):



Regarding Claim 15, Aslanov et al. discloses a diffractometer wherein the element to be analyzed is not mechanically linked to the diffractometer (Figs. 1-4).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aslanov et al. as applied to Claim 3 above, and further in view of Koblenz (2,843,749).

Aslanov et al. discloses all the characteristic features of the present invention as recited above.

However, Aslanov et al. fails to disclose a diffractometer wherein the detector is a proportional ionization counter.

Koblenz discloses a diffractometer (x-ray diffraction, Col. 3, lines 3-6; Fig. 1) wherein a detector (detector, Col. 3, line 28; Figs. 1, 3, and 4, #5) is a proportional ionization counter (proportional counter, Col. 3, lines 28-30; Figs. 1, 3, and 4, #5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the diffractometer disclosed by Aslanov et al. by incorporating the feature disclosed by Koblenz.

One would have been motivated to make this modification in order to provide an improved signal-to-noise ratio (Col. 2, lines 3-9) as implied by Koblenz.

3. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aslanov et al. as applied to Claim 1 above, and further in view of Fink et al. (5,359,640).

Regarding Claim 9, Aslanov et al. discloses all the characteristic features of the present invention as recited above.

However, Aslanov et al. fails to disclose a diffractometer comprising a pointing device placed on the analytical unit for positioning the analytical unit with respect to an element to be analyzed.

Fink et al. discloses a diffractometer (x-ray diffractometer, Col. 2, line 23; Fig. 1) comprising a pointing device (Col. 4, lines 41-46) placed on an analytical unit (goniometer ring, Col. 2, line 29; Fig. 1, "GR") for positioning the analytical unit with respect to an element (sample, Col. 2, line 36; Figs. 1, 2, 3a, and 5a, "P") to be analyzed.



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It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the diffractometer disclosed by Aslanov et al. by incorporating the feature disclosed by Fink et al.

One would have been motivated to make this modification in order to provide reliable and simple positioning of the focal spot of the x-ray on the sample (Col. 1, lines 46-49) as shown by Fink et al.

Regarding Claim 10, Aslanov et al. as modified above discloses all the characteristic features of the present invention as recited above. Fink et al. further discloses a diffractometer wherein the pointing device comprises a laser (laser, Col. 2, line 56; Figs. 1, 2, 3a, 4a, and 5a, "A") and a telecamera (camera, Col. 2, line 63; Figs. 1, 2, 3a, 4a, and 5a, "KA").

However, Aslanov et al. fails to disclose a diffractometer wherein the pointing device comprising at least two lasers.

It would have been obvious to one of ordinary skill in the art at the time of the invention to require the pointing device of Fink et al. to comprise at least two lasers since mere duplication of the essential working parts of a device involves only routine skill in the art.

One would be motivated to make this modification for more accurate positioning.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mona M. Sanei whose telephone number is (571) 272-8657. The examiner can normally be reached on Monday through Friday, 9-5.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
mms



  
**EDWARD J. GLICK**  
**SUPERVISORY PATENT EXAMINER**